



# CARLETON UNIVERSITY

Ottawa, Ontario

*116th Convocation*

Thursday, June 14, 2001



# 2001 Spring Convocation

Convocation at Carleton University — 2



*Thursday, June 14, 10:00 a.m.*

Honorary Degree Recipient Gülsün Sağlamer — 4

Order of Proceedings — 5

Doctor of Philosophy from the Faculty of Engineering and Design;  
Master of Engineering; Master of Architecture; Bachelor of Engineering;  
Bachelor of Architecture; Bachelor of Industrial Design



*Thursday, June 14, 2:00 p.m.*

Honorary Degree Recipient Harry B. Gray — 14

Order of Proceedings — 15

Doctor of Philosophy from the Faculty of Science and the School of Computer Science; Master of  
Science; Master of Computer Science; Bachelor of Science (Honours) and Bachelor of Science; Bachelor  
of Mathematics (Honours) and Bachelor of Mathematics; Bachelor of Computer Science (Honours)



Medallists in the Graduating Class — 25

# Convocation at Carleton University



The Convocation ceremony (the calling together of the academic assembly) has its roots in university traditions of medieval Europe.

## *The Mace*

The mace is a staff symbolizing authority. In the days of knighthood, it was a weapon, but after the 16th century it became solely a symbol of authority carried by a distinguished member of an assembly. It is used on ceremonial occasions to signify the right of an individual or institution to perform a certain function—in the case of universities, to grant degrees.

At Convocation, the mace is carried ahead of the Chancellor as he enters and leaves each ceremony. During the ceremony the mace is displayed on a special stand as an embodiment of the authority of the University.

Carleton's mace was presented to the University in 1976 as a gift from the Chair of the Board of Governors at that time, Mr. Hyman Soloway. It is a silver-plated staff approximately three feet long. At the upper end there is a bowl marked with the University's coat of arms and the University motto in both Latin and English—"Opera Nobis Aeterna" and "Ours the Task Eternal." From the upper portion of the bowl rises a phoenix. Traditional oak leaves surround the lower end of the staff.

## *Coat of Arms*

The coat of arms was presented to the University by His Excellency The Right Honourable Ramon John Hnatyshyn, Governor-General of Canada, on November 15, 1992 as part of Carleton's 50th anniversary celebrations. It is described in heraldic terms as follows: "Sable a maple leaf Gules irradiated and charged with an open book Argent; And for a Crest: on a wreath Argent Sable and Gules a Phoenix Gules quilled and beaked Or issuing from flames proper; And for a Motto: Ours the Task Eternal; And for Supporters: on a grassy mount on either side a raven Sable beaked and membered or armed Gules."

The open book on the maple leaf signifies that Carleton University is in the nation's capital and that learning is open to all who wish to partake of it. The phoenix, the legendary eternal bird, symbolizes the renewing of learning from older foundations, in recognition of Henry Marshall Tory's role in the founding of the University when he was 78 years old. "Ours the Task Eternal" is taken from a Walt Whitman poem entitled "Pioneers" and ties in with the eternal quality of the phoenix.

And so, the Carleton University coat of arms symbolizes sound learning, good citizenship, and the highest hopes of humanity.

## *The Diploma*

The diploma the graduates receive at Convocation is the certificate of qualification which publishes the fact that the student has fulfilled all the requirements and completed the prescribed course of study for the degree. As the senior academic legislative body of the University, it is the Senate which has determined whether the requirements have been met. The signatures of both the Chancellor and the President of the University appear on the diploma: the Chancellor because of his role in conferring the degree, and the President who, as Chair of Senate, certifies that Senate has enacted the required motion to award the degree. The Seal of the University is affixed to the diploma as a mark of authentication.

## *Academic Dress*

The academic dress of Carleton University results from a compromise between that found in the ancient foundations of Britain and Canada and the American Intercollegiate Code. All three hoods—bachelor's, master's, and doctor's—are of the simple or Oxford shape. The bachelor's hood is made of black stuff; the master's and doctor's are made of black silk and all are lined with silver silk with two chevrons, one of red and one of black. From bachelor's to doctor's, the hoods are progressively longer and opened to show more and more of the lining.

The velvet border of the hoods denotes the degrees granted according to the following colour combinations: architecture is cerise; arts is white; commerce is camel brown; computer science is royal blue; engineering is orange; humanities is white with a red cord sewn slightly in from the lower border; industrial design is dark cardinal; international business is camel brown with a red cord sewn slightly in from the lower border; journalism is white with a black cord sewn slightly in from the lower border; management studies and business administration is camel brown with a black cord sewn slightly in from the lower border; mathematics is hunter green; music is venetian pink; public administration is peacock blue; science is golden yellow; social work is cream; and doctor of philosophy is purple.

The master's and bachelor's gowns, to be worn with the above hoods, are of full length, made of black stuff, with a gathered yoke behind, and long open-fronted sleeves. The doctoral gown is of full-style, made of fine royal blue cloth with facings of light blue silk, with a full gathered yoke behind, and closed sleeves with an opening at the elbows.

The two shades of blue in the doctoral gown are those of the United Nations, and are meant to recognize the University's long-standing interest, from its earliest years, in international affairs and issues. The colours were chosen when the University awarded its first honorary degree, in 1954, to the second Secretary General of the United Nations, the late Dag Hammarskjöld. The tradition of awarding honorary degrees to Secretaries General of the United Nations has continued since that time.

The gown of the honorary Doctor of Laws, Literature, Music, Science, Engineering, Architecture or Fine Arts is a full robe with bell-shaped sleeves. It is made of fine royal blue cloth with facings and sleeves in light blue silk. The hood is made of the same material as the gown, has the same lining as that for the degrees granted by examination, and is bordered with dark mauve for the degree of Doctor of Laws; vibrant blue for the degree of Doctor of Literature; venetian pink for the degree of Doctor of Music; red for the degree of Doctor of Science; orange for the degree of Doctor of Engineering, cerise for the degree of Doctor of Architecture, and dark cardinal for the degree of Doctor of Fine Arts.

## *Alumni Park*

Weather permitting, today's Convocation ceremonies are being held outdoors in Alumni Park which was dedicated in 1992, at the initiative of the Carleton University Alumni Association, to commemorate the University's 50th anniversary. The arbour under which the Chancellor, the President and Vice-Chancellor, the representative of the Board of Governors, and the faculty are seated is a generous gift from the Association. It provides a permanent stage for Carleton's Convocation ceremonies and other events such as theatrical productions, concerts, and the like. Future plans for the Park include an enhancement of the existing fountain area with the construction of a plaza and landscaping to open up views to the Rideau River.



*The Presiding Officer of Convocation is the Chancellor of the University, Arthur Kroeger, C.C., M.A., LL.D.*

Accompanying him on the podium are Colin Betts, B.A., representing the Board of Governors, and G. Stuart Adam, B.J., M.A., Ph.D., Acting President and Vice-Chancellor.

*Assisting the Chancellor are:*

Chong H. Chan, B.Sc., M.A.Sc., Ph.D., PEng.  
Professor of Engineering  
Clerk of Senate  
and Marshal of Convocation

Brian C. Mortimer, B.Sc., M.Sc., Ph.D.  
Associate Professor of Mathematics  
Associate Dean of the Faculty of Science  
and Associate Marshal of Convocation

Donald L. Bailey, B.Eng., M.Eng.  
Instructor of Systems and Computer Engineering  
and Beadle of Convocation

Robert C. Burk, B.Sc., M.Sc., Ph.D.  
Associate Professor of Chemistry  
and Beadle of Convocation

Tullio C. Caputo, B.A., M.A., Ph.D.  
Associate Professor of Sociology and Anthropology  
and Beadle of Convocation

Kathleen M. Gilmour, B.Sc., Ph.D.  
Assistant Professor of Biology  
and Beadle of Convocation

Moyra J. McDill, B.Eng., M.Eng. Ph.D., PEng.  
Professor of Mechanical and Aerospace Engineering  
and Beadle of Convocation

Delphine Rossille, Eng.Dipl., M.Sc., Ph.D.  
Assistant Professor of Systems and Computer Engineering  
and Beadle of Convocation

*Also assisting at Convocation:*

Carol Corkran  
Acting Assistant Dean/Registrar  
Faculty of Graduate Studies and Research

Donald L. Russell, B.Eng., M.S., Ph.D., PEng.  
Associate Professor of Mechanical and Aerospace Engineering  
Associate Dean, Faculty of Engineering and Design

Lisa Ralph  
Assistant Dean of Students and Registrar,  
Faculty of Science and School of Computer Science

June Drayton Callendar, B.Soc.Sc.  
Christina Farago  
Sharon Palmer  
Glendy Wong, B.A.  
Registrar's Office, Faculty of Graduate Studies and Research

Heather Lupton, B.Sc.  
Paddy Mark, B.A.  
Mary Orser  
Registrarial Services, Faculty of Science and  
School of Computer Science

Pegge Clarke  
Angel Garrett, B.Sc.  
Marlene Groves  
Colin Harkness, B.A.  
Registrarial Services, Faculty of Engineering and Design

Bruce McLennan, B.A.  
Monika St. Jean  
Lisa Tsotroudis, B.A.  
Records and Registration Services

Pamela Mallon  
Trapp Zaluska  
Office of the President

Allister Hain, B.A., M.A.  
Nanci Jolicoeur  
Rosemary Patterson  
MaryAnne Pomainville  
Janet Weichel McKenzie, B.A.  
University Communications

Patrick O'Brien, B.A., D.P.A.  
Convocation Co-ordinator  
University Secretariat

Cathy Pearen  
Convocation Co-ordinator  
Senate Office

## *Honorary Degree Recipient*



**Gülsün Sağlamer**

Gülsün Sağlamer, B.Arch., Ph.D., Rector, Istanbul Technical University and President, Turkish Association of Architectural Education, will be awarded the degree of Doctor of Architecture, *honoris causa*, at the morning ceremony on Thursday, June 14, "in recognition of a distinguished career as an architect, scholar, and university administrator."

*Order of Proceedings*  
*Thursday, June 14, 10:00 a.m.*



Chancellor Arthur Kroeger, C.C., M.A., LL.D., presiding.

*The audience is requested to stand when the Academic Procession arrives,  
to remain standing until 'O Canada' has been sung, and at the conclusion of the ceremony  
to remain until the Academic Procession has left.*

Processional Music

John R. Coghill Jr., B.Mus. C.D. (bagpipes)

Gary C. Matthews, C.D. (snare drum)

Edward J. Moffatt, C.D. (bagpipes)

O Canada\*

*(the audience is invited to sing)*

Welcome by the Master of Ceremonies

G. Stuart Adam, B.J., M.A., Ph.D.

Acting President and Vice-Chancellor

Conferring of the Degree of

Doctor of Architecture,

*honoris causa*, upon

Gülsün Sağlamer, B. Arch., Ph.D.

(presented by S. Gulzar Haider, B.Sc., M.S., M.Arch., Ph.D.,  
Professor and Director of the School of Architecture)

Convocation Address

Gülsün Sağlamer

Conferring of Degrees by Examination

Warrant

Chong H. Chan, B.Sc., M.A.Sc., Ph.D., P.Eng.

Clerk of Senate

Awarding of Medals

Recessional Music

*\* see next page for words*

## *O Canada*



*O Canada! Our home and native land!*  
*True patriot love in all thy sons command.*  
*With glowing hearts we see thee rise,*  
*The True North strong and free!*  
*From far and wide, O Canada,*  
*We stand on guard for thee.*  
*God keep our land glorious and free!*  
*O Canada, we stand on guard for thee.*  
*O Canada, we stand on guard for thee.*



# Recipients of Degrees



## Doctor of Philosophy

(presented by Professor R.C. Blockley,  
Dean of the Faculty of Graduate Studies  
and Research)

Degrees conferred at Spring Convocation are  
awarded by Senate in February and in June.  
Degrees awarded in February are denoted by an  
asterisk (\*).

### Michael Scott Jeffries

*B.Eng., M.Eng. (Carleton)*

Aerospace Engineering  
Initial Investigations of Transonic Turbine  
Aerodynamics Using the Carleton University  
High-Speed Wind Tunnel  
Supervisor: S.A. Sjolander

### Ashutosh Bagchi

*B.C.E. (Jadavpur, India),*

*M.S. (Indian Institute of Technology, India)*

Civil Engineering  
Evaluation of the Seismic Performance of  
Reinforced Concrete Buildings  
Supervisor: J.L. Humar

### Mohamed Hossam Ahmed

*B.Sc., M.Sc. (Ain Shams, Egypt)*

Electrical Engineering  
Capacity Enhancement and Performance  
Analysis of Call Admission and Load Control  
in Wireless Communication Networks  
Supervisor: S.A. Mahmoud

### \* Ihsan Erdin

*B.S. (Turkish Naval Academy, Turkey),*

*M.Sc. (Middle East Technical, Turkey)*

Electrical Engineering  
Signal Integrity Analysis of High-Speed  
Circuits with Embedded Electromagnetic  
Modules  
Supervisor: M.S. Nakhla

### Ramy Guirguis

*B.Sc., M.Sc. (Alexandria, Egypt)*

Electrical Engineering  
Transmission of Multi-layered MPEG-4 Video  
over ATM/ABR Networks  
Supervisor: S.A. Mahmoud

### \* Abdelgader M. Legnain

*B.Sc., M.Sc. (Garyounis, Libya)*

Electrical Engineering  
Adaptive Combined Space-Time Receiver  
Structures for DS-CDMA Systems  
Supervisor: D.D. Falconer

### S. Mohsen Moussavi

*B.Sc. (Shiraz, Iran), M.A.Sc. (Waterloo)*

Electrical Engineering  
Differential Bipolar Stray-Insensitive  
Quasi-Passive Pipelined Digital-to-Analog  
Conversion  
Supervisors: C. Plett and R. Mason

### \* Sébastien Roy

*B.Sc.A., M.Sc. (Laval)*

Electrical Engineering  
Space-Time Processing Techniques with  
Application to Broadband Wireless Systems  
Supervisor: D.D. Falconer

### Mohamed Limayem Lamari

*B.A.Sc. (Ottawa), M.Eng. (Carleton)*

Mechanical Engineering  
An Experimental Investigation of Two-Phase  
(Air-water) Flow Regimes in a Horizontal  
Tube at Near Atmospheric Conditions  
Supervisor: J.T. Rogers

### Cheryl Ilona Alicia Thomson

*B.A.Sc. (Waterloo)*

Mechanical Engineering  
Modeling the Effects of Particle Clustering  
on Ductile Failure  
Supervisors: R. Bell, A.K. Pilkey and  
M.J. Worswick

## Master of Engineering

(presented by Professor R.C. Blockley,  
Dean of the Faculty of Graduate Studies  
and Research)

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awarded by Senate in February and in June.  
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asterisk (\*).

### Jonathan Colin Cook

*B.Eng. (Carleton)*

Aerospace  
Influence of Corrosion Damage Topography  
on Fatigue Properties in Longitudinal  
Fuselage Lap Joints

### \* Bogdan E. Cudzilo

*B.Eng. (Ryerson Polytechnic)*

Aerospace  
Two-Dimensional BEM Analysis  
of Cracked Fibre-Metal Laminates With  
Circular Cut-Outs

### Ihtesham Ahmad

*B.Sc. (NED University of Engineering and  
Technology, Pakistan)*

Civil

\* Ali Asghar  
*B.Eng. (NED University of Engineering and Technology, Pakistan)*  
 Civil  
 Pavement Management System for Canadian Forces Bases

\* Grant Russell Carey  
*B.A.Sc. (Waterloo)*  
 Civil  
 Development and Validation of a Three-Dimensional Model for Predicting Redox-Dependent Intrinsic Remediation

Norman Meyer  
*B.Sc. (Guelph)*  
 Civil  
 A Study of the Treatment of Nitrate-Contaminated Water by Electrodeionization

\* Julie Noel  
*Diplôme D'Ingenieur Bâtiment (École Spéciale des Travaux Publics, France)*  
 Civil

Anushka Shibchurn  
*B.Sc. (Manitoba)*  
 Civil

Anton Doytchinov Tzenkov  
*B.Eng. (University of Architecture, Civil Engineering and Geodesy, Bulgaria)*  
 Civil  
 Seismic Analysis of Concrete Arch Dams with Contraction Joint and Nonlinear Material Models

\* Ineke Maria Van Zeeland  
*B.Eng. (Carleton)*  
 Civil  
 Modelling of Dimension Lumber in Axial Compression at Elevated Temperatures

Anthony C. F. West  
*B.A.Sc. (Waterloo)*  
 Civil  
 Physical and Numerical Modelling of an In-pit Tailings Management Facility

Hoda Amer  
*B.Sc. (The American University in Cairo, Egypt)*  
 Electrical  
 Automatic Transformation of Uml Software Specification into LQN Performance Models using Graph Grammar Techniques

Daniel Noel Badiere  
*B.Sc. (Queen's)*  
 Electrical  
 A Study of High Q Spiral Inductor Fabrication Methods Using a Production Silicon Process with Application to a Current Tuned Microwave Oscillator

\* Edward Cheng  
*B.Sc. (Alberta)*  
 Electrical  
 On-Demand Multicast Routing in Mobile AD HOC Networks

Amanda Maria DeVries  
*B.A.Sc. (Waterloo)*  
 Electrical  
 Silicon Based Metal-Semiconductor-Metal Photodetectors

\* Saman Chandanakeerthi  
 Ilangasinghe  
*B.Eng.Mgt. (McMaster)*  
 Electrical  
 Specialization in Software Engineering

Tauseef Ahmed Israr  
*B.Eng. (Carleton)*  
 Electrical  
 A Lightweight Technique for Extracting Software Architecture and Performance Models from Traces

Rupinder Singh Makkar  
*B.Eng. (Punjab, India)*  
 Electrical  
 QoS Control for IP Networks: Buffer Management and Backward Explicit Congestion Notification (BECN)

Zafar Masood  
*B.Eng. (NED University of Engineering and Technology, Pakistan)*  
 Electrical  
 Interference Characterization in Unlicensed National Information Infrastructure (U-NII) band

Alex Panther  
*B.A.Sc. (Ottawa)*  
 Electrical  
 Low Temperature Cofired Ceramics for LMCS/LMDS Applications

Dorin Petriu  
*B.Eng. (Carleton)*  
 Electrical  
 Layered Software Performance Models Constructed from Use Case Map Specifications

Nabil Seddigh  
*B.A.Sc. (Waterloo)*  
 Electrical  
 Performance Analysis of TCP's Retransmission Timeout Mechanism

Sophie Vrzic  
*B.Sc. (McMaster)*  
 Electrical  
 Optimum Capacity with Linear Power Assignment for Multimedia CDMA Networks

Haining Yang  
*B.Eng. (Tsinghua, China)*  
 Electrical  
 Design and Implementation of a Cascaded Integrator Comb (CIC) Decimation Filter

\* David Backman  
*B.A.Sc. (Ottawa)*  
 Mechanical  
 An Experimental Test Fixture and Test Methodology for Evaluating Fracture Fixation Plates

William Brent Lievers  
*B.Eng. (Carleton)*  
 Mechanical  
 Effect of Void Damage and Shear Band Development on the Bendability of AA6111 Automotive Aluminum Alloy Sheet

Ashley Gordon McColgan  
*B.Eng. (Carleton)*  
 Mechanical

\* Bin Wang  
*B.Eng. (Beijing Polytechnic, China)*  
 Mechanical  
 The Prediction of Low Cycle Fatigue For Die Casting With FEM

Trevor Jason Izsak  
*B.A.Sc. (Regina)*  
 Telecommunications Technology Management  
 Product News Releases for Time to Market Competitive Intelligence

Tian Lu  
*B.Eng., M.Eng. (Northern Jiaotong, China)*  
 Telecommunications Technology Management  
 A CORBA-based Interface-centric Approach to Signaling for IP-based Telephony Services

\* Arti Maheshwari  
*B.Sc. (Aligarh Muslim, India), M.Tech. (Roorkee, India)*  
 Telecommunications Technology Management

## Master of Architecture

*(presented by Professor R.C. Blockley,  
Dean of the Faculty of Graduate Studies  
and Research)*

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by Senate in February and in June. Degrees awarded  
in February are denoted by an asterisk (\*).

Richard Barry Craig

*B.Arch. (Carleton)*

Architect Dan S. Hanganu:  
École des Hautes Études Commerciales and  
Work From 1980-1995 From Remembrance  
to Renewal

Khaled Hassouneh

*B.Arch. (Damascus, Syria)*

Islamic Community Centers in  
North America Architecture in  
Service of Cultural Identity

Ashwani Randev

*B.Arch. (Toronto)*

Digital Media in Architecture  
Engineering Construction

Amit Tungare

*B.Arch. (Pune, India), M.Plan. (School of  
Planning and Architecture, India)*

Le Corbusier's Principles of  
City Planning and Their Application in  
Virtual Environments

## Bachelor of Engineering

*(presented by Professor S.A. Mahmoud,  
Dean of the Faculty of Engineering and  
Design, assisted by representatives of  
Departments)*

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by Senate in February and in June. Degrees awarded  
in February are denoted by an asterisk (\*).

### AEROSPACE

Simon Baillie

*with distinction*

David Beach

*B.Sc. (Waterloo)*

*with distinction*

Crystal Marie Belter

*with high distinction*

Kenneth Walter David Boate

*with high distinction*

Yolanda Sascheen Brown

Vincent Maurice Casey

\* Shannon E. Castellarin

Daniel Thomas Laurent Colnval

*with distinction*

Peter James Connolly

Philip Andrew Corber

*with distinction*

John Paul Crane

Robert Ian Davis

*B.C.S. (Manitoba)*

*with high distinction*

Roman Taras Duplak

*B.Sc. (Manitoba)*

Stephen J. Edwards

*with distinction*

Cheryl Ann Eisler

*with high distinction*

\* Wissam Eldib

Martin Wilhelm Gamma

*with high distinction*

Danielle Michelle Godin

*with distinction*

Joe Hajjar

*with distinction*

Nabil Ibrahim

Scott A. Jurgens

*with distinction*

Irfan S. Kadri

*with high distinction*

Chiko Lee

*with distinction*

Corey Andrew Mask

*with distinction*

Brian Robert McAuliffe

*with high distinction*

Laird Murray McKinnon

Nathan M. J. Meier

*with high distinction*

Calvin Rans

*with high distinction*

Charles I. Romanowitch

Bradley A. Schroeder

*with high distinction*

Heather Joan Scott

*with high distinction*

Mathan Sellathurai

Kayla Sakina Shedlack

Jian-Feng Shi

*with high distinction*

Sandip Singh

*with distinction*

Pathipan Sivarasa

Yuichiro Sotozaki

Paul Alan Sponagle

\* Ernest S. M. Tan

*with high distinction*

Joshua A. Vanderveen

*with distinction*

Chad J. Vermeulen

Harry Webster

*with high distinction*

Aneta Wyrzykowska

*with distinction*

Andreas P. C. Xenos

*with distinction*

### CIVIL

Jennifer Stephanie Rose Ailey

Muna Mahmoud Awatta

Concentration in Management

*with distinction*

Abdolhadi Bardestani

Alain R. Beaulieu

Concentration in Management

Min-Wei Chen

Concentration in Management

Ramie Wai Man Chu

Adam N. Cooney

Brian Dymond

Concentration in Management

Stuart A. Edison

Concentration in Management

Stephen Peter Robert Greenaway

Kin Fai Kenneth Hui

Carmelo G. Ielo

Sam Jafarpour-Sabbaghi

Concentration in Management

Trevor Martin Kealey

*with distinction*

Radomir Mastilovic

Robert Thomas Mount

Minor in Business

*with distinction*

Alistair Douglas Selley

## COMPUTER SYSTEMS

Abdelhalim Abbas  
*with high distinction*

Bassey Enene Akua Akan

Ian W. T. Barclay

Dario Baturan  
*with high distinction*

Ilan Benisty  
*B.Sc. (Ottawa)*

Michal Bienek  
*with high distinction*

Clyde Donald Brown  
*B.Sc. (Queen's)*  
*with high distinction*

Pavel Brun  
*with distinction*

\* Kyle M. Campbell

Dave Carter  
*with distinction*

Robin Chahal

Chris Alexander John Chapman  
*with high distinction*

Michel Robert Charlton

Soheer Choudhry

Jonathan Cockerline  
*(posthumous)*

Jean-Luc R. Cooke

Christopher Glenn Coughtrey

Darren R. De Ridder  
*with high distinction*

Stephan de Wit  
*with high distinction*

Tara A. Dear  
*with high distinction*

Wojciech Dzidek  
*with distinction*

Graham D. W. Eaves

Alic A. Edgar

Eric Paul Ehret  
*with distinction*

Gavin P. Fortugno  
*with high distinction*

Stefano Leonard Fortugno  
*with high distinction*

Mark Joseph Francisco  
*with high distinction*

\* Emile Michel Gendy  
*B.Sc. (Alexandria, Egypt)*

Aminah Hamam

Michael N. Hu  
*with high distinction*

Paul Allan Jackson  
*with distinction*

Nenad Jevtic  
*with distinction*

Raju G. Kallumkal

Sanja Kovacevic

Alexander Kutman  
*with high distinction*

Greg Larocque

Elpis Law  
*B.Sc. (Ottawa)*  
*with high distinction*

Peter James LeClair

Meng-Lin Lee  
*with high distinction*

\* Thomas Lee

Lambert Terry F. M. Lepoutre  
*with high distinction*

Scott N. Levac

Richard Liang

Timothy Lim  
*with high distinction*

James MacNider  
*with high distinction*

Paul Daniel McCracken  
*with distinction*

James Elliott Milne  
*with distinction*

Vijayasekaran Muthucumarasamy

Nicola Nuziale  
*with high distinction*

Daniell Otell

\* Sivasaravanan Palaninathan

Igor Papic  
*with distinction*

Eric Dylan Peters  
*B.Sc. (Carleton)*  
*with distinction*

Bernd Pottner

Jesse Scott

Ian T. Showalter  
*with distinction*

Stephen Robert Simpson  
*with high distinction*

\* Percival Sripathmarajah

David Edward Stickley

Sonal Sukhija  
*with distinction*

\* Ketheeswaran Suntharaganesh

Steven W. L. Thomas

Kevin Loren Thompson  
*with high distinction*

Geoffrey Treen  
*with distinction*

Joseph A. Watters

## ELECTRICAL

\* Abdirahman Adam

Ramin Adim

\* William A. Albert

\* Layne P.D. Anderson

Aramugam Balakumar

\* Nesabalan Balasundaram

Kandasamy Baskaran

Marsha Bissessarsingh  
*with distinction*

Daniel Allen Burkett

Mark Hunter Cation

Gagandeep S. Chahl  
*with high distinction*

James Chiu  
*with high distinction*

Peter Cushman

Faisal Farhan  
*B.Eng. (Kuwait)*  
*with distinction*

Prabaharan Ganesalingam

Ursula M. Green

Martin-Ramzy Hanna

Quang Van Simon Hoang

Fadi Hodroj

Samantha Huynh

Rami Ibrahim

Moeed Ahmed Israr

Girish Jayakumar

Zoran Jovanovic

Tharmeswaran Kandasamy

Balasritharan Kandiah

\* Abdinasir Kandid

\* Anantharajan Kathiramalai

Sabanesan Kathiramalai



Min Kim	* Faleh Sultan	Kin Yiu Vincent Chung
* Jacek B. Kowal Minor in Business	Rosemary Takac	Geoffrey Lawrence Coleman
Matthew Ladd	Kim Te	Gregory Darren Diaczky
Carol K. Y. Lam	* Sutharshan Tharmalingam	J. Jeffrey A. Eland Concentration in Computer-Integrated Manufacturing <i>Minor in Business</i>
Fung-Lin Leung <i>with distinction</i>	Araviinth Thayagarajah	Nancy Christina Pamela Granter <i>with distinction</i>
Sarah Lindsay	Mark J. Thompson <i>with high distinction</i>	Krystina M. Green
Kimball W. Loo	Mohammed Treif	Wafik Erian Hanna Concentration in Computer-Integrated Manufacturing
Kenzie Daniel MacIsaac <i>B.Sc. (Carleton)</i> <i>with high distinction</i>	Adrienne E. Turnbull <i>with distinction</i>	Ronald Hoeksma
Sujata Mahidhara	James Nicholas Peter Van Dalen	Harun Ibrahim
Anna Malenica	Parthipan Veeravagu	Bradley Alan Lecheminant Concentration in Computer-Integrated Manufacturing <i>with distinction</i>
Nadir Masood	Kaleswaran Visuvalingam	François Letellier de St-Just
Gautam Mehandru <i>with distinction</i>	Donald Dave Walsh <i>with distinction</i>	Darren R. Linn <i>with distinction</i>
Ali Mian	* Leslie James Wilson	* Todd Cameron MacGillivray
Akhtar Sadat Mirfazli	Isabelle Woodward <i>with high distinction</i>	Shaji S. Manipurath Concentration in Computer-Integrated Manufacturing
Andrew Stephen Munch	Yuxi Yang	Jonathan Andrew McGregor Concentration in Computer-Integrated Manufacturing
Azrudi Mustapha	Stephen Yoon	Joyce Courtney McKee Concentration in Computer-Integrated Manufacturing
Nandan Nadarajah	Charles Antonio Zappia <i>with high distinction</i>	Ian C. Murdie Concentration in Computer-Integrated Manufacturing
Jeny Palacios	Arsalan Zargar	Glenn R. Murphy <i>with distinction</i>
Mark A. Pasini <i>with high distinction</i>	Alen Zukich	Delanyo Kwaku Ofori
Thomas G. Pepper	ENVIRONMENTAL	Christopher L. Olsen Concentration in Computer-Integrated Manufacturing
Pierre René Perrier	Sherri Dixon	* Christian-Dan Opris Concentration in Computer-Integrated Manufacturing
Sasa Potiparski	Shawn Patrick S. P. Doherty <i>with distinction</i>	Steven M. Palmer <i>with distinction</i>
Jason David Proud <i>with high distinction</i>	Okitanye Gaogane <i>Minor in Business</i> <i>with distinction</i>	Edward Portmann <i>with distinction</i>
* Blerim Qela	* Jenifer Kelly <i>with high distinction</i>	Eran Salzman
Alan Rodriguez	* Todd J. Marche	Brett M. Tackaberry <i>with distinction</i>
Ryan K. Rogers <i>with distinction</i>	Sherri Marie McCulloch <i>with high distinction</i>	
* Temoteo Rulloda	James Walter MEwen <i>B.Sc. (Dalhousie)</i> <i>with distinction</i>	
Caba Sabo <i>with distinction</i>	Stephanie Murdock	
Nathan Scales <i>with high distinction</i>	George Ramatoboro <i>with distinction</i>	
Mark Anthony Scott	Philipos Y. Yigzaw	
Vinothachandran Shanmugarajah	MECHANICAL	
Sasha Simeunovic	Stacie Burchell <i>with high distinction</i>	
Navdeep Singh	Charles M. Cassie	
Raymond F. Snair		
Zuweina Sood <i>with high distinction</i>		
Anandavimalan Sothinathan		

Michael Jonathan Telka  
*Concentration in  
 Computer-Integrated Manufacturing*

Paul Townsend

Kelsey I. D. Trattner

William Joseph Wienand IV  
*Concentration in  
 Computer-Integrated Manufacturing*

Mickey Chia-Yu Yuan

Toby C. Zimmerman  
*with high distinction*

## Bachelor of Architecture

*(presented by Professor Gulzar Haider,  
 Director of the School of Architecture)*

Degrees conferred at Spring Convocation are awarded by Senate in February and in June. Degrees awarded in February are denoted by an asterisk (\*).

Andrea Marie Ayers

Namwoo Howard Baek  
*with distinction*

Scott Edward Bailey  
*B.A. Honours (Concordia)*

Janny Y. C. Chan  
*with high distinction*

Norman K. Chin  
*with high distinction*

Michael B. Conway  
*with distinction*

Jason James Darcey

Jeffrey A. Dennis  
*with distinction*

Tobias E. Fellows

Aaron A. Finbow  
*with high distinction*

Derek A. Fleming  
*with high distinction*

Justin Huang Ford  
*with distinction*

Darryl Hood  
*with high distinction*

Te-hao Hsieh

Carolyn Jones

\* Maged Kamal  
*with distinction*

Chih-Shen Brian Kao  
*with distinction*

Caroline Kim  
*with distinction*

Winga Lam  
*with high distinction*

Jay Po-Yen Lin  
*with high distinction*

Vram Malek  
*with distinction*

John S. Manley

Kevin Joshua Martin  
*with high distinction*

Jason W. McIntyre  
*with high distinction*

Bruce Allan Meiklejohn  
*with distinction*

Sangeetha Narayan  
*with distinction*

Dan N. Nawrocki  
*with distinction*

Brian Ng

Linda P. Okum  
*with distinction*

Cheng Hock Tommy Ong  
*with distinction*

David A. Pritchard  
*B.A. (British Columbia)  
 with distinction*

\* Alana Teresa Ragbir

Alfonso M. Ramirez

Shiho Sakane  
*with high distinction*

Brian G. Saumure  
*B.A. Honours (McMaster)  
 with distinction*

Jennifer L. Sgro  
*with distinction*

Jeff Strauss  
*with distinction*

Kevin S. Thomas  
*with high distinction*

Khanh Quoc Tran

Vanessa Valladares  
*with distinction*

Venus Vane  
*with distinction*

Vasilios Vassilopoulos  
*B.A. (Concordia)*

Ayako Yagi  
*with distinction*

## Bachelor of Industrial Design

*(presented by Associate Professor  
 Brian P. Burns, Director of the School of  
 Industrial Design)*

Degrees conferred at Spring Convocation are awarded by Senate in February and in June. Degrees awarded in February are denoted by an asterisk (\*).

Son Chung  
*with distinction*

Jason S. Clerk  
*with distinction*

Sean A. Conroy  
*Co-operative Education*

Cynthia Arlene Damar

Kevin R. Folz

Lucas James Heikke Jouppi

Richard M. Kuchinsky  
*Co-operative Education  
 with high distinction*

Barbara Kulig  
*with distinction*

Arthur Wing-Kai Leung

Kathleen Leung  
*with distinction*

Ryan D. Mulligan  
*Co-operative Education*

David A. O'Connor  
*with distinction*

Alexandre Martin Schnobb

\* Ai Wee Teh  
*with distinction*

Fusu Thao

Sean W. R. Thompson  
*with distinction*

Daniel Man-Sen Ting  
*Baccalaureate of Fine Arts*

Denis Tsui  
*with distinction*

Lily Wei

Kevin Wong





## *Honorary Degree Recipient*



**Harry B. Gray**

Harry B. Gray, Arnold O. Beckman Professor of Chemistry and Director of the Beckman Institute, California Institute of Technology, will be awarded the degree of Doctor of Science, *honoris causa*, at the afternoon ceremony on Thursday, June 14, "in recognition of a distinguished career in bioinorganic chemistry and inorganic photochemistry."

*Order of Proceedings*  
*Thursday, June 14, 2:00 p.m.*



Chancellor Arthur Kroeger, C.C., M.A., LL.D., presiding.

*The audience is requested to stand when the Academic Procession arrives,  
to remain standing until 'O Canada' has been sung, and at the conclusion of the ceremony  
to remain until the Academic Procession has left.*

Processional Music

John R. Coghill Jr., B.Mus. C.D. (bagpipes)

Gary C. Matthews, C.D. (snare drum)

Edward J. Moffatt, C.D. (bagpipes)

O Canada\*

*(the audience is invited to sing)*

Welcome by the Master of Ceremonies

G. Stuart Adam, B.J., M.A., Ph.D.

Acting President and Vice-Chancellor

Conferring of the Degree of

Doctor of Science, *honoris causa*, upon

Harry B. Gray, Ph.D., D.h.c., Fil.dr.h.c., Laurea h.c.

(presented by Robert J. Crutchley, B.Sc., Ph.D.,

Professor of Chemistry)

Convocation Address

Harry B. Gray

Conferring of Degrees by Examination

Warrant

Chong H. Chan, B.Sc., M.A.Sc., Ph.D., P.Eng.

Clerk of Senate

Awarding of Medals

Presentation of the Henry Marshall Tory Award

to Sean Andrew McFee

(presented by Jay Nordenstrom, President, C.U.S.A.)

Recessional Music

*\* see next page for words*

## *O Canada*



*O Canada! Our home and native land!*  
*True patriot love in all thy sons command.*  
*With glowing hearts we see thee rise,*  
*The True North strong and free!*  
*From far and wide, O Canada,*  
*We stand on guard for thee.*  
*God keep our land glorious and free!*  
*O Canada, we stand on guard for thee.*  
*O Canada, we stand on guard for thee.*

# Recipients of Degrees



## Doctor of Philosophy

(presented by Professor R.C. Blockley,  
Dean of the Faculty of Graduate Studies  
and Research)

Degrees conferred at Spring Convocation are awarded  
by Senate in February and in June. Degrees awarded  
in February are denoted by an asterisk (\*).

### \* Darren John Bender

*B.Sc. (Regina)*

Biology

Wildlife Movement in Fragmented Habitats:  
The Influence of Landscape Complexity

Supervisor: L. Fahrig

### Gabriel Blouin-Demers

*B.Sc. (McGill)*

Biology

Thermoregulation and habitat use by black  
rat snakes (*Elaphe obsoleta obsoleta*) at the  
northern extreme of their distribution

Supervisor: P.J. Weatherhead

### \* Tamara Erica English

*B.Sc. (Mount Allison), M.Sc. (Carleton)*

Biology

Differential Gene Expression in Response to  
Freezing and Anoxia in the Intertidal Marine  
Gastropod, *Littorina Littorea*

Supervisor: K. Storey

### Mufida Ben Younes

*B.Sc. (Al-Fateh, Libya),*

*M.Sc. (Birmingham, England)*

Chemistry

Studies on the Mechanisms of Vaporization  
of Analytes and Matrices in Electrothermal  
Vaporization Inductively Coupled Plasma  
Mass Spectrometry

Supervisors: C.L. Chakrabarti  
and D. C. Grégoire

### Sean Michael MacKinnon

*B.Sc. (Carleton)*

Chemistry

Design, Synthesis and Characterization of  
Novel Functional Poly(aryl ether)s

Supervisor: Z.Y. Wang

### \* Courtney Douglas Sandau

*B.Sc. (Western Ontario)*

Chemistry

Analytical Chemistry of Hydroxylated  
Metabolites of PCBs and other Halogenated  
Phenolic Compounds in Blood and Their  
Relationship to Thyroid Hormone and  
Retinol Homeostasis in Humans and  
Polar Bears

Supervisor: R. J. Norstrom

### \* Shengzao Chen

*B.Sc. (Peking, China),*

*M.Sc., Ph.D. (Nanjing, China)*

Earth Sciences

Global Comparisons of Earthquake Source  
Spectra

Supervisor: G. Atkinson

### Josée Lévesque

*B.Sc. (Québec à Montréal),*

*M.Sc. (Sherbrooke)*

Earth Sciences

Modelling Forest Structure and Health

Using High-Resolution Airborne Imagery:

Investigation of Spectral Unmixing and

Spatial Analysis of Radiometric Fractions

Supervisor: D. King

### Steven Charles Turgeon

*B.Sc., M.Sc. (Sherbrooke)*

Earth Sciences

Petrography and discontinuities, growth  
rates and stable isotopes of speleothems as

indicators of paleoclimates from Oregon

Caves National Monument, southwestern  
Oregon, USA

Supervisor: J. Lundberg

### Zuosheng Hu

*B.Sc., M.Sc. (Shandong, China)*

Mathematics

Contributions to the Theory of Almost  
Periodic Differential Equations

Supervisor: A. Mingarelli

### \* Patrick Ryan Morin

*B.C.S., M.C.S. (Carleton)*

Computer Science

Online Routing in Geometric Graphs

Supervisors: P. Bose and J. Sack

### \* Doron Nussbaum

*B.Sc. (Tel Aviv, Israel), M.C.S. (Carleton)*

Computer Science

Parallel Spatial Modelling

Supervisor: J. Sack

### Michael Francis Valenta

*B.Sc., M.Sc. (New Brunswick)*

Computer Science

A Framework for Representing  
and Specifying Animation Models for  
Virtual Characters

Supervisor: W. Lalonde

## Master of Science

(presented by Professor R.C. Blockley,  
Dean of the Faculty of Graduate Studies  
and Research)

Degrees conferred at Spring Convocation are awarded  
by Senate in February and in June. Degrees awarded  
in February are denoted by an asterisk (\*).

\* Daniel George Bert

B.Sc. (Ottawa)

Biology

A Multiscale Analysis of Nested Species  
Subsets of Forest Birds in Agricultural  
Landscapes Near Ottawa, Canada

\* Weiping Chen

B.Sc. (Beijing University Of Chinese Medicine  
and Pharmacology, China)

Biology

Generation of new colonial mutants in  
*Neurospora crassa* using insertional  
mutagenesis

\* Shahriar Saeedi

B.Sc. (Carleton)

Biology

Targeting of Calcium/Calmodulin-Dependent  
Protein Kinase II to Membranes

\* Mahmoud Salkhordeh

B.Sc. (Carleton)

Biology

Localization of Membrane  
Binding Domains in Synapsin I

\* Yanhua Yan

B.Med. (Hengyang Medical College, China),  
M.Med. (Sun Yat-Sen University of Medical  
Science, China)

Biology

Characterization of the *sbr* gene in  
*Neurospora crassa*

Queenie Sau Man Kwok

B.Eng. (McGill)

Chemistry

Investigation of the Wettability of  
Ammonium Nitrate Prills

Christopher Kenneth Savile

B.Sc. (Carleton)

Chemistry

Linking Sphingosine and Phytosphingosine  
Formation: Cryptoregiochemistry of  
Dihydroceramide $\Delta^4$  Desaturase

\* Patricia Panayota Cosmopoulos

B.Sc. (Patras, Greece)

Earth Sciences

Temporal Analysis of Forest Change at an  
Abandoned Mine Site Using High-Resolution  
Remote Sensing

Darwin Green

B.Sc. (British Columbia)

Earth Sciences

Geology of Volcanogenic

Massive Sulphide Prospects of the Palmer  
Property, Haines Area, Southeastern Alaska

\* Mladen Jorgic

Diploma (Zagreb, Croatia)

Earth Sciences

Evaluation of Magnitude Recurrence  
Parameters Based on a Global Earthquake  
Catalog

\* Niranjala Kottachchi

B.Sc. (Carleton)

Earth Sciences

Jurassic Foraminifera from the Queen  
Charlotte Islands, British Columbia:  
biostratigraphy, paleoenvironments and  
paleogeographic implications

\* Olga Vorobieva

B.Sc. (Novosibirsk State, Russia)

Earth Sciences

A Multidisciplinary Subsurface Study of the  
Albian Bow Island and Westgate Formations  
in Southwestern Alberta, Canada

Manal Almasri

B.Sc. (College of Science and Technology, Israel)  
Information and Systems Science

Rupert Brooks

B.Sc.Eng. (New Brunswick)

Information and Systems Science

\* Xuwei Chen

B.Sc. (Shanghai, China), M.Sc. (Shanghai  
Institute, China)

Information and Systems Science

Guizhen Feng

B.Sc. (Jilin, China)

Information and Systems Science

\* Honggang Gai

B.Sc. (Inner-Mongolia Teacher's College, China),  
M.Sc. (Sichuan, China)

Information and Systems Science

Zhiying Guo

B.Eng. (Tsinghua, China), M.Sc. (Chang Chun  
Institute of Optics and Fine Mechanics, China)

Information and Systems Science

\* Sase Sookraj Janki

B.Sc. (Federal University of Pará, Brazil)

Information and Systems Science

Amirul Khan

B.Sc. (Bangladesh University, Bangladesh),  
M.Sc. (Norwegian University, Norway)

Information and Systems Science

Yong Li

M.Sc. (Central China Normal University,  
China), Ph.D. (Chinese Academy of Sciences,  
China)

Information and Systems Science

Lingling Liu

B.Eng., M.Eng. (Chengdu University of Science  
and Tech., China), M.Eng. (Carleton)

Information and Systems Science

Yanping Liu

B.Eng. (Lanzhou, China)

Information and Systems Science

Zheng Liu

B.Eng., M.Eng. (Nanjing Institute of Chemical  
Technology, China), Ph.D. (Purdue, U.S.A.)

Information and Systems Science

Qinglin Lu

B.Sc. (Ocean University of Qingdao, China)

Information and Systems Science

\* Jonathan Cheyne M'Phail

B.Eng. (Royal Military College)

Information and Systems Science

Deciding on a Pattern: Towards a Distributed  
Decision Aid that Supports the Selection of  
an Object-Oriented Software Pattern

Zhiwen Niu

B.Eng. (Xian Mining Institute, China)

Information and Systems Science

Anura Palihapitiya Gamage

B.Sc. (Colombo, Sri Lanka)

Information and Systems Science

Hanming Wang

B.Sc. (Hangzhou, China), Ph.D. (Changchun  
Institute of Applied Chemistry, China)

Information and Systems Science

\* Li Wang

B.Sc. (Lanzhou, China), M.Sc. (Hangzhou,  
China), M.Sc. (National University of  
Singapore, Singapore)

Information and Systems Science

Qingda Wang

B.Sc. (University of Science and Technology,  
China), Ph.D. (Shanghai Institute of  
Biochemistry, China)

Information and Systems Science

Facility Location Constrained  
to a Simple Polygon

Xuqing Wu

B.Eng. (University of Science and Technology,  
China), M.Sc. (Alberta)

Information and Systems Science

Yan Xu

B.Eng. (Bao Tou Iron and Steel College, China)

Information and Systems Science



\* Chuncai Yang  
*B.Sc., M.Sc., Ph.D. (Jilin, China)*  
 Information and Systems Science

Jianqu Yao  
*B.Sc. (Hangzhou, China), M.Sc., Ph.D. (Chinese Academy of Science, China)*  
 Information and Systems Science

Issam Mohammad Abu-Irwaq  
*B.Sc. (Jordan University of Science and Technology, Jordan)*  
 Mathematics

John Healy  
*B.Sc. (Carleton)*  
 Mathematics

Hoang Ly Nguyen  
*B.Sc. (Carleton)*  
 Mathematics

\* Mark Christopher McDonald  
*B.Sc. (Memorial)*  
 Physics  
 Specialization in Medical Physics  
 Hyperpolarized <sup>129</sup>Xe Nuclear  
 Magnetic Resonance at 1.89 T  
 and 85 G: A Signal-to-Noise  
 Ratio Comparison

Nora Jill Marsh  
*B.Sc. (Carleton)*  
 Psychology  
 Specialization in Neuroscience  
 Intraventricular or Intracerebral  
 Administration of PD-135,158 in CD-1 Mice:  
 Immediate and Long Term  
 Behavioural Evaluation in a Modified  
 Transition Paradigm

## Master of Computer Science

(presented by Professor R.C. Blockley,  
 Dean of the Faculty of Graduate Studies  
 and Research)

Degrees conferred at Spring Convocation are awarded  
 by Senate in February and in June. Degrees awarded  
 in February are denoted by an asterisk (\*).

\* Bruce Ashfield  
*B.C.S. (New Brunswick)*  
 Distributed Deadlock Detection in Mobile  
 Agent Systems

\* Robert David Catral  
*B.C.S. (Carleton)*  
 RAGA: Rule Acquisition With A  
 Genetic Algorithm

Mohamed El Shentenawy  
*B.Sc. (Cairo, Egypt)*  
 Transcoding of JPEG images  
 for Wireless Proxy Communications

\* Abdulbaset Gaddah  
*Diploma (Higher Institute of Computer Technology,  
 Libya)*  
 WWW Browsing using a Transcoding Proxy

Javier Govea Mata  
*Ingenieria (Instituto Tecnológico de San Luis  
 Potosí, Mexico)*  
 Comparison of Bandwidth Usage:  
 Service Location Protocol and Jini

Jian Huang  
*B.Med. (Guangzhou Medical College, China),  
 B.C.S. (Carleton)*  
 Visibility Problems Occurring in  
 Radiation Treatment Planning

\* Vivian Tin-Wai Lee  
*B.Math. (Waterloo)*  
 User Directed Prefetching

\* Elio Velazquez  
*Bachelor (Havana, Cuba)*  
 Mobile Agents in Distributed Search:  
 A Comparative Study

Aaron DeRoy Wieland  
*B.Sc. (Bishop's)*  
 HXCS: Hierarchical Classifier System with  
 Accuracy-Based Fitness

\* Yajin Xin  
*B.Sc. (Beijing Information Technology Institute,  
 China)*  
 Design and Implementation of an Agent-  
 based Architecture for QoS Management

Lei Yuan  
*B.Eng. (Harbin Institute of Technology, China)*  
 Metadata Management for Multimedia  
 Interactive TeleLearning System

\* Martin Joseph Carbonneau  
*B.Sc. (Sherbrooke)*

## Bachelor of Science (with Honours)

(presented by Professor P.J.S. Watson,  
 Dean of the Faculty of Science, assisted by  
 representatives of Departments)

Degrees conferred at Spring Convocation are awarded  
 by Senate in February and in June. Degrees awarded  
 in February are denoted by an asterisk (\*).

### BIOCHEMISTRY

Alana M. Clegg  
 Honours

Shawn Makinen  
 Honours

Jessica Anne Maloney  
 Highest Honours

Gary W. Noorlander  
*B.A. (Carleton)*  
 Honours

### BIOLOGY

Graham Patrick Ahearn  
 Honours

Stuart Leo Charbonneau  
 Honours

Stephanie E. Johnson  
*B.Sc. (Carleton)*  
 Highest Honours

Moshi Nuktai Fox Kotierk  
 Honours

Khalida Liaquat  
 Honours

Kathryn A. Slater  
 High Honours  
 Minor in Psychology

### CHEMISTRY

Chaya H. Ben-Porat  
 Highest Honours

Christine Amanda Caputo  
 Highest Honours

Peter R. Diamente  
 Honours

Rebecca Louise Gardner  
 Highest Honours

Alison Rae Schwass  
 Honours

### ENVIRONMENTAL SCIENCE

Lynda Gail Blackburn  
 Highest Honours  
 Concentration in Biology

Angela T. Darwin  
 Highest Honours  
 Concentration in Biology  
 Minor in Geographic Information Processing

Matthew P. DesRoches  
 Highest Honours  
 Concentration in Biology

Frank DiMaria  
 Honours  
 Concentration in Chemistry

## GEOLOGY

Catherine Channing  
High Honours

Mary Angelique Constantinou  
High Honours

Steven K. Gregory  
High Honours

Brett Harris  
High Honours

Mandy Sarfi  
Honours

Derek M. Smith  
Honours

Sarah Ann Vandervlugt  
High Honours

## INTEGRATED SCIENCE STUDIES

Cynthia Lui Chow  
*B.Sc. (Carleton)*  
Honours

Brian W. Double  
Honours

Sina Muscati  
Highest Honours

Neda Katarina Saric  
Honours

Megan A. Whitehead  
Highest Honours  
Minor in Women's Studies

## COMPUTER MATHEMATICS

Elizabeth Samir Morcos  
High Honours  
Co-operative Education

## COMPUTER MATHEMATICS: INFORMATION TECHNOLOGY

Sean J. Drennan  
Honours

## MATHEMATICS

\* Yaroslav Bezverkhnayev  
Highest Honours

Michael Emile Czudner  
Highest Honours

Jennifer R. Vandergraaf  
Highest Honours  
Co-operative Education

## PHYSICS

Adam Badeen  
Honours

David Macrillo  
Honours

Christopher Lee Shepherd  
High Honours  
Specialization in Modern Technology

## PSYCHOLOGY

Kimberley A. Hopwood  
Highest Honours

\* Donna Lynn Larmour  
Honours

## BIOCHEMISTRY AND BIOTECHNOLOGY

\* Jocelynn Katherine Absi  
Honours

Dina Mortada Aly  
Highest Honours

\* Matthew Randall Castellarin  
Honours

Brenda L. Charlebois  
Honours

\* Omar Chaudhry  
*B.Sc. (Ottawa)*  
High Honours

Maszkowski Lukasz Miernik  
Highest Honours

Christopher Michael Sturgeon  
Highest Honours

Ratheenthiran Subramaniam  
Honours

Krishnamurthy Thillainadesan  
Honours

Punsara Dasuni Wahalawatta  
High Honours

## BIOLOGY AND BIOTECHNOLOGY

Danso Ako-Adjei  
Honours

Alison Margaret Holmes Moore  
Honours

Vaibhav Sahay  
*B.Sc. (McMaster)*  
Highest Honours

Brandi Sherman  
Honours

\* Errol Thomson  
*B.Sc. (Carleton)*  
Highest Honours

\* Constantin Voloaca  
*B.Sc. (Cluj-Napoca, Romania)*  
Honours

## BIOLOGY AND PHYSICAL GEOGRAPHY

Candice M. Eisner  
High Honours

Robin Eve MacKay  
Honours

Elsa Ng  
Honours

## NEUROSCIENCE

Angelika M. Goncalves DaSilva  
High Honours

\* Robyn Lynn Mwuese Lett  
High Honours

Tracy Elizabeth Low  
Highest Honours

Barbora M. Pek  
Highest Honours

## COMPUTER SCIENCE AND MATHEMATICS

Zinabu Biru  
Honours  
Specialization in Computing Theory  
and Numerical Methods

## Bachelor of Science

*(presented by Professor P.J.S. Watson,  
Dean of the Faculty of Science)*

Degrees conferred at Spring Convocation are awarded  
by Senate in February and in June. Degrees awarded  
in February are denoted by an asterisk (\*).

## BIOCHEMISTRY

Tinbite Daniel

Andy Hua

Mark R. Kozlowski  
Minor in Psychology

Sarah B. Mackinnon

\* Katherine Plowman

\* Nilenthini Ratnassabapathy

Dion Shah

Chantal Marie-Reine Vermette

## BIOLOGY

Llewellyn Lamptey Accam

Roxanne B. Bergeron

Sheena Dawn Hughes

\* Lorraine Lavictoire

\* Haleh Majidian

Heather Moquin

\* Patrick O. Ogunnaike  
 Jennifer J. Payne  
 Alia J. Shier  
 Heidi A. Thomson  
 Dinesh S. Warnakulasuriarachchi  
*with distinction*  
 Jennifer Donna Yeung

## CHEMISTRY

Emmanuel Balntas  
 Annamarie Kathleen Conlon  
 Pamela Christine Hayes  
 Bruce M. Robertson  
 Selvaranjini Selvathamby

## COMPUTATIONAL CHEMISTRY

Homaira Afkhami-Dastjerdian  
 Anthony DiNardo

## GEOLOGY

Kriket Little

## INTEGRATED SCIENCE STUDIES

Michael Beach  
 Christopher Robert Crosman  
 Shauna Duigenan  
*with distinction*  
 \* Edward David Kerr  
 Christopher Lynn Lambert  
 Peter J. LePage  
 Francois A. McKellar  
 Paul D. G. Ondovcik  
 Larry M. Pan  
*with distinction*  
 \* Derek William Reynolds

## COMPUTER MATHEMATICS

Insaf Balshe  
 \* Spencer Quinton Roy Buwalda  
 \* Yuefeng Gao  
*B.Eng. (Technical University of Zhengjiang)*  
 \* Soraya Ghattas  
*with distinction*  
 Colin Alexander Haubrich  
 \* Curtis James Ireland  
 Menakshi Kochar  
 Man Yam Lau  
 Shawn McGregor

Tyler Alexander McLellan  
 Dong Pham  
 \* J. Jeffrey R. G. Robinson

## MATHEMATICS

\* Kiran Elahi  
 Nethajee Rajaratnam

## Bachelor of Mathematics (with Honours)

*(presented by Professor Cyril W.L. Garner,  
 representing the Director of the School of  
 Mathematics and Statistics)*

Degrees conferred at Spring Convocation are awarded  
 by Senate in February and in June. Degrees awarded  
 in February are denoted by an asterisk (\*).

## COMPUTER MATHEMATICS: INFORMATION TECHNOLOGY

Roula Chamoun  
*B.Sc. (Carleton)*  
 High Honours  
 Aaron Wojcik Lee  
 Highest Honours  
 Minor in Economics  
 Gigi Wing Chi Lee  
 with Honours  
 Minor in Computer Science  
 Stephen Savard  
*B.Math. (Carleton)*  
 with Honours

## MATHEMATICS

Benjamin Joseph Young  
 Highest Honours  
 Co-operative Education

## STATISTICS

Pek Ian Un  
*B.Sc. (Carleton)*  
 with Honours

## COMPUTER SCIENCE AND MATHEMATICS

William Taylor Hamilton  
 with Honours  
 Specialization in Computing Theory and  
 Numerical Methods

## Bachelor of Mathematics

*(presented by Professor Cyril W.L. Garner,  
 representing the Director of the School of  
 Mathematics and Statistics)*

Degrees conferred at Spring Convocation are awarded  
 by Senate in February and in June. Degrees awarded  
 in February are denoted by an asterisk (\*).

## COMPUTER MATHEMATICS

Mujtaba S. Abedi  
 Mahmoud Al-Ansari  
 \* Nimao Ali  
 Rima Balshe  
 \* Gordon R. Beatty  
 David Bryan Cahoon  
 Shaun Robert Haapala  
 \* Ali Jibril Hirsi  
 Chau Ngoc Ha Le  
 Qun Lu  
*B.Med. (Capital University of Medicine, China)*  
*with distinction*  
 Ehab Mohamed  
 Joseph Paul Niefer  
 \* David V. Paul  
 \* Hong H. Pham  
 Ihab Salem  
 Jason St. Aubyn Simpson  
 \* James A. Stinson  
 Alvina Zaroubina  
*B.Sc. (Leningrad State University, Russia)*

## MATHEMATICS

Dahlia Antopolski  
 Farah Elmi  
 David Gains  
*with distinction*  
 Son Le  
 \* Fayeze Seifeddine

## STATISTICS

Louise Desormeaux  
 Minor in Psychology  
*with distinction*

## Bachelor of Computer Science (with Honours)

(presented by Professor Douglas Howe, representing the Director of the School of Computer Science)

Degrees conferred at Spring Convocation are awarded by Senate in February and in June. Degrees awarded in February are denoted by an asterisk (\*).

Rana Alhalimi  
with Honours

Erika Milagros Balarezo Delgado  
*B.I.D. (Universidad de Lima, Peru)*  
with Honours

\* Christopher Ewan Bark  
with Honours

\* Gregory R. Beaton  
with Honours  
Minor in Economics

\* Jason A. Buffone  
with Honours  
Minor in Business

Chuo Hua Ivy Chen  
with Honours

Shravan Chopra  
with Honours

\* Kam Shing Chung  
with Honours  
Co-operative Education  
Minor in Mathematics

Robert Conte  
with Honours

William John Couch  
*B.Com. (Carleton)*  
with Honours

Daniel C. DuFeu  
Highest Honours

Stephan Gelinas  
Highest Honours  
Minor in Business

Bogdan M. Gheorghe  
with Honours

Roderick W. Gillis  
*B.Sc. (Dalhousie)*  
with Honours

Ujith Janaka Godawatta  
*B.Sc. Engineering (University of Moratuwa, Sri Lanka)*  
with Honours

Jeremy P. Hall  
with Honours

Tara Ann Hatoum  
*B.A. (Carleton)*  
with Honours

Xiaofen He  
*B.Eng. (Tsinghua University, China)*  
Highest Honours

H. Alexander Hill  
with Honours  
Minor in Mathematics

Harold Joseph Hoffer  
with Honours

Xiaoyang Hu  
*B.Eng. (North China University of Technology)*  
Highest Honours

\* Julian Lloyd Hunter  
with Honours

Michael Johnston  
with Honours  
Co-operative Education

Jessica Kendle Kealey  
Highest Honours

Lawrence Chinedu Kemdirim  
*B.A. (Carleton)*  
with Honours  
Minor in Mathematics

\* Maciek Klimkowski  
Highest Honours

Wojciech Kozlowski  
Highest Honours  
Minor in Mathematics

Si Thien Le  
High Honours  
Co-operative Education

Alicja Lesiak  
with Honours  
Minor in Business

\* Ting Li  
*B.A. (Harbin Normal University, China)*  
with Honours

John Ma  
High Honours  
Minor in Mathematics

\* Jay Edwin Reid McConnell  
*B.Com. (Carleton)*  
with Honours

Sean Andrew McFee  
Highest Honours  
Co-operative Education  
Minor in Music

Dennis K. McNamer  
with Honours  
Minor in Mathematics

Patrick Murphy  
with Honours

Lisa Norris  
*B.A. (Queen's)*  
Highest Honours

\* Christopher S. O'Brien  
*B.C.S. (Carleton)*  
Highest Honours  
Co-operative Education  
Minor in Mathematics

David M. O'Neill  
Highest Honours  
Co-operative Education  
Minor in Mathematics

\* Bartosz Orlowski  
High Honours  
Minor in Mathematics

Marcin L. Pilat  
Highest Honours  
Co-operative Education  
Minor in Mathematics

\* Jocelyn Jayne Sinclair Rathburn  
High Honours  
Minor in Mathematics

David Keith Rennalls  
High Honours

\* Marek Senkowski  
*B.A. (Ottawa)*  
High Honours

Suganthan Sivagnanasundaram  
*B.Eng. (Carleton)*  
with Honours

Christopher T. Solc  
High Honours

Lydia Angeline Spencer  
with Honours  
Minor in Mathematics

Neil Carlisle Taitt  
with Honours  
Co-operative Education

Junhua Tang  
High Honours

Aidan Van Dyk  
High Honours

Brian Vo  
*B.Sc. (Toronto)*  
Highest Honours

Elizabeth Sarah Walsh  
High Honours

Jason C. Walton  
Highest Honours

Ryan Waters  
High Honours  
Minor in Mathematics

Rob Wloch  
High Honours  
Co-operative Education

\* Kenneth Wu  
High Honours  
Minor in Mathematics

\* Steven Xu  
High Honours

Marzieh Yazdanyar  
Highest Honours

Edmond Yee  
with Honours

Matthew Young  
with Honours  
Minor in Mathematics

\* Yi Zheng  
*B.C.S. (Carleton)*  
Highest Honours  
Co-operative Education

Mark Zlamal  
with Honours  
Minor in Mathematics



*The following awards  
were made by Senate to  
the 2000 Fall  
Convocation program.*



## Master of Engineering

---

Sara Ahrari  
*B.Sc. (Baba'i Institute for Higher Education,  
Iran)*  
Civil Engineering  
Significance of Using Uniform Hazard  
Spectra on Seismic Response Behaviour of  
Bridges

## Bachelor of Arts (With Honours)

---

Karine Chawla  
High Honours in History

David Eric Dilworth  
Honours in Law

Suzanne Kathrine Prevost  
High Honours in Mass Communication and  
Spanish

Julie Lynne Quaife  
Honours in Law

## Bachelor of Arts

---

Marsha McRae  
History

Ronald N. Reaman  
Canadian Studies  
Minor in Political Science

Peter David Saarty  
Economics

Katherine Webber  
Psychology

## Bachelor of International Business (with Honours)

---

Jeremy Benjamin Dimmell

## Bachelor of Engineering

---

Jennifer Woodworth  
Electrical

## Senate Medal at the Doctoral Level

---

Andreas Fahlman  
Biology



## Medallists in the Graduating Class



### ***The Governor General's Medal — Bachelor's Level***

Awarded annually to the student standing at the head of the graduating class at the bachelor's level.

Donor: Her Excellency the Governor General of Canada

**Larry M. Pan**

*Bachelor of Science*

*Integrated Science Studies*

### ***The Chancellor's Medal***

Awarded annually in the name of the Chancellor of the University to a graduating student of outstanding academic achievement.

**Marcin L. Pilat**

*Bachelor of Computer Science*

*Software*

### ***The President's Medal***

Awarded annually in the name of the President of the University to the student with the highest standing in a general degree program of studies.

**Shauna Duigenan**

*Bachelor of Science*

*Integrated Science Studies*

### ***University Medal for Outstanding Graduate Work — Ph.D. Level***

Awarded, when merited, for outstanding graduate work at the doctoral level.

**Emma Whelan**

*Sociology*

### ***University Medal for Outstanding Graduate Work — Master's Level***

Awarded, when merited, for outstanding graduate work at the master's level.

**Qingda Wang**

*Master of Science*

*Integrated Science Studies*

### ***University Medals (Undergraduate)***

Awarded annually, when merited, to the graduating students standing highest in architecture, arts, commerce, computer science, engineering, humanities, industrial design, interfaculty studies, international business, journalism, mathematics, music, public administration, science, and social work.

University Medal in Architecture

**Derek A. Fleming**

University Medal in Arts

**Kerrie Allison Rodier**

*Honours History*

University Medal in Arts

**Dawn B. Mullins**

*Honours Psychology*

University Medal in Commerce

**Seleema Mohamed**

University Medal in Computer Science

**Daniel C. DuFeu**

*Network Computing*

University Medal in Engineering

**Kenzie Daniel MacIsaac**

*Electrical Engineering*

University Medal in Humanities

**Clare Demerse**

University Medal in Industrial Design

**Richard M. Kuchinsky**

University Medal in Interfaculty Studies

**Sina Muscati**

*Honours Integrated Science Studies*

*(Biology and Geography/Technology, Society, Environment)*

University Medal in International Business

**Colin Hugh Donald MacDougall**

University Medal in Journalism

**Yasmin Ilana Solomonescu**

University Medal in Mathematics

**David Gains**

University Medal in Music

**Kevoork Andonian**

University Medal in Science

**Barbora M. Pek**

*Honours Neuroscience*

University Medal in Social Work

**Natasha S. Tatartcheff-Quesnel**

### ***Senate Medals***

Awarded, when merited, to graduating students of outstanding academic achievement.

#### Doctoral Level

**Patrick Ryan Morin**

*Computer Science*

**Ihsan Erdin**

*Electrical Engineering*

**Kiera L. Ladner**

*Political Science*

#### Master's Level

**Robert Joseph Doucet**

*English*

**Anton Doytchinov Tzenkov**

*Civil Engineering*

**Miwako Nitani**  
*Business Administration*

**Darwin Green**  
*Earth Sciences*

Undergraduate Level

**Yi Zheng**  
*Bachelor of Computer Science*  
*Software*

**Brian Robert McAuliffe**  
*Aerospace Engineering*

**Michael N. Hu**  
*Computer Systems Engineering*

**Gavin P. Fortugno**  
*Computer Systems Engineering*

**Lisa Norris**  
*Bachelor of Computer Science*  
*Software and Computing*

**Robert Ian Davis**  
*Aerospace Engineering*

**Isabelle Woodward**  
*Electrical Engineering*

**Stefano Leonard Fortugno**  
*Computer Systems Engineering*

**Michael Caspi**  
*Honours Cognitive Science*

**Zuweina Sood**  
*Electrical Engineering*

**Abdelhalim Abbas**  
*Computer Systems Engineering*

**Teisha Gaylard**  
*Honours Mass Communication and*  
*Certificate in French Translation Studies*

**Scott Raymond Campbell**  
*Honours Criminology and Criminal Justice*

**Angela Lynn Loder**  
*Bachelor of Humanities*

**Joanne Charlebois**  
*Honours Bachelor of Arts*  
*Mathematics*

**Marissa Bianca Paron**  
*Honours French*

**Marilyn G. Showalter**  
*Bachelor of Commerce*

**Elizabeth Anne Smalley**  
*Honours Bachelor of Arts*  
*Environmental Studies*

**Erica Beth Wilson**  
*Honours Bachelor of Arts*  
*Environmental Studies*

**Christopher Michael Sturgeon**  
*Honours Biochemistry and Biotechnology*

**Margaret Louise Summerfield**  
*Honours History*

**Sean Andrew McFee**  
*Bachelor of Computer Science*  
*Software*

**Mark Cyril Halfyard**  
*Law*

**Calvin Rans**  
*Aerospace Engineering*

**Fawn Anahareo Fritzen**  
*Bachelor of Commerce*

**Craig M. Skinner**  
*Bachelor of Journalism*

**Darren R. De Ridder**  
*Computer Systems Engineering*

**Stephan de Wit**  
*Computer Systems Engineering*

**Kevin Loren Thompson**  
*Computer Systems Engineering*

**Samantha Marie Copeland**  
*Bachelor of Humanities*

**Paul M. Verbrugge**  
*Honours Criminology and Criminal Justice*

**Nadine Saryeddine**  
*Bachelor of Commerce*

**Lambert Terry F.M. Lepoutre**  
*Computer Systems Engineering*

**Bradley A. Schroeder**  
*Aerospace Engineering*

**Megan A. Whitehead**  
*Honours Integrated Science Studies*

**Julie Michelle Gobbo**  
*Honours Sociology*

**Alexander Kutman**  
*Computer Systems Engineering*

**Christopher S. O'Brien**  
*Bachelor of Computer Science  
Software*

**Brooks Albert Sommerville**  
*Bachelor of Humanities*

**Cheryl Ann Eisler**  
*Aerospace Engineering*

**Chaya H. Ben-Porat**  
*Honours Chemistry*

**Emily Jane Moore**  
*Bachelor of Humanities*

**Shelley Susan Whetter**  
*Honours Mass Communication  
and Women's Studies*

**Christine Amanda Caputo**  
*Honours Chemistry*

**Megan Ardagh Weekes**  
*Bachelor of Humanities*

**Caprice D. Brunelle**  
*Economics*

**Robert Ryan Higgs**  
*Bachelor of Commerce*

**Dinesh S. Warnakulasuriyarachchi**  
*Biology*

**Stephanie A. Giroux**  
*Honours Anthropology*

**Marzieh Yazdanyar**  
*Bachelor of Computer Science  
Software*

**Meaghan Blythe Scanlon**  
*Honours English*

**Martin Wilhelm Gamma**  
*Aerospace Engineering*

**Maszeko Lukasz Miernik**  
*Honours Biochemistry and Biotechnology*

**Geordan C. Patterson**  
*Bachelor of Humanities*

**Tamara Anne Dugas**  
*Bachelor of Commerce*

**Erin C. Hayes**  
*Film Studies*

**Errol Thomson**  
*Honours Biology and Biotechnology*

**Stephanie Margaret Coward**  
*Honours Interdisciplinary Studies*

**Tracy Elizabeth Low**  
*Honours Bachelor of Science*  
*Neuroscience*

**Anna Maria J. Pollock**  
*Bachelor of Humanities*

**Laura Susan Montgomery**  
*Honours Canadian Studies and English*

**Kelley Elaine Love**  
*Bachelor of Commerce*

**Palesa Kendra Jackson**  
*Honours Linguistics and Certificate in the Teaching of*  
*English as a Second Language*

**Patricia Dawn Roy**  
*Honours Linguistics/Applied Language Studies and Sociology*

**Andrew Paul Burtch**  
*Honours History*

**Melanie Lynn Brooks**  
*Bachelor of Journalism*

**Elpis Law**  
*Computer Systems Engineering*

**Sean Homuth**  
*Bachelor of Commerce*

**Nathalie Brown**  
*Bachelor of Commerce*

**Nicholas Theil Taylor**  
*Bachelor of Humanities*

**Marie Christina Alex Vechsler**  
*Honours Anthropology*

**Oren R. Hercz**  
*Bachelor of Humanities*

**Alexandrine Boudreault-Fournier**  
*Honours Anthropology*









